

48

Shawn N. Jasper, Commissioner

42

April 29, 2025

Her Excellency, Governor Kelly A. Ayotte
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the New Hampshire Department of Agriculture, Markets, and Food, Division of Pesticide Control to enter into a Cooperative Project Agreement, in the amount of \$78,984, with the University of New Hampshire, Office of Sponsored Research, Durham, NH, VC #315187 B083, for the advancement of agricultural research and to assist in the promotion of Integrated Pest Management practices in New Hampshire, effective upon Governor and Council approval through March 31, 2026. 100% Other Funds (Integrated Pest Management Fees).

Funding is available to support this request in Fiscal Year 2025 and are anticipated to be available in Fiscal Year 2026, upon the continued appropriation of funds in the future operating budget with the authority to adjust encumbrances in each of the state fiscal years through the Budget Office, if needed and justified.

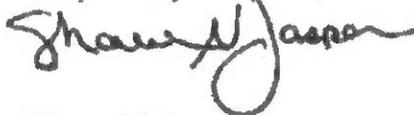
02-18-18-183010-21820000, Integrated Pest Management

	<u>FY 2025</u>	<u>FY 2026</u>	<u>Total</u>
075-500590 - Grants and Subsidies	\$20,000	\$58,984	\$78,984

EXPLANATION

The New Hampshire Department of Agriculture, Markets, and Food (NHDAMF), Division of Pesticide Control in fulfilling its responsibilities under the Integrated Pest Management (IPM) Program, RSA 430:50; to promote the principles of IPM and assist New Hampshire citizens to advance the practice of such principles, has reviewed the project, "2025 IPM Program for Fruit and Vegetable Crops On-Farm Monitoring", and finds it exemplifies good practices associated with Integrated Pest Management. The research and educational aspects associated with this project and the efforts of the University of New Hampshire Cooperative Extension identify and establish the presence and treatment methods for pests common to sweet corn and vine crops. Experience and results of this project serve the benefit of all citizens of New Hampshire.

Respectfully submitted,



Shawn N. Jasper
Commissioner

COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE, Department of Agriculture, Markets & Food

and the

University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, **Department of Agriculture, Markets & Food**, (hereinafter "State"), and the University System of New Hampshire, acting through **University of New Hampshire**, (hereinafter "Campus"), for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective date") and shall end on 3/31/26. If the provision of services by Campus precedes the Effective date, all services performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

Project Title: 2025 IPM Program for Fruit and Vegetable Crops On-Farm Monitoring

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

State Project Administrator

Name: Rebecca L. Tgibedes
Address: 1 Granite Place South
Suite 211
P.O. Box 2042
Concord, NH 03301
Phone: 603 271-7788

Campus Project Administrator

Name: Gretchen Swain
Address: University of New Hampshire
Sponsored Programs Administration
51 College Road
Durham, NH 03824
Phone: 603 862-4865

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports and related correspondence shall be directed to the individuals so designated.

State Project Director

Name: David J. Rousseau
Address: 1 Granite Place South
Suite 211
P.O. Box 2042
Concord, NH 03301
Phone: 603 271-3640

Campus Project Director

Name: Amber Vinchesi-Vahl
Address: UNH Cooperative Extension
Kendall Hall
129 Main Street
Durham, NH 03824
Phone: 603 696-3312

F. Total State funds in the amount of \$78,984 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

Campus will cost-share _____ % of total costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. _____ from _____ under CFDA# _____. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as a part of this Project Agreement.

G. Check if applicable

Article(s) _____ of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

H. State has chosen not to take possession of equipment purchased under this Project Agreement.
 State has chosen to take possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the University of New Hampshire and the State of New Hampshire, Department of Agriculture, Markets & Food have executed this Project Agreement.

By An Authorized Official of:
University of New Hampshire

Name: Dianne Hall
Title: Manager, Pre-Award Compliance

Signature and Date: Dianne Hall Digitally signed by Dianne Hall
Date: 2023.03.20 16:58:14 -0400

By An Authorized Official of: the New
Hampshire Office of the Attorney General
Name: Louise D. Williams

Title: Assistant Attorney General
Signature and Date: Louise D. Williams May 5, 2025

By An Authorized Official of:
Department of Agriculture, Markets &
Food

Name: Shawn N. Jasper
Title: Commissioner

Signature and Date: Shawn N. Jasper 3/25/25

By An Authorized Official of: the New
Hampshire Governor & Executive Council
Name:

Title:
Signature and Date:

EXHIBIT A

- A. Project Title:** 2025 IPM Program for Fruit and Vegetable Crops On-Farm Monitoring
- B. Project Period:** Upon Governor and Council Approval through March 31, 2026
- C. Objectives:** The objectives of the University of New Hampshire are to assist the Department of Agriculture, Markets & Food in the promotion and advancement of Integrated Pest Management in New Hampshire
- D. Scope of Work:** A detailed scope of work is on file with the Department of Agriculture, Markets & Food and described in Attachment A of this agreement.
- E. Deliverables Schedule:** A detailed description with schedule for each project is on file with the Department of Agriculture, Markets & Food and described in Attachment A of this agreement.

Major Project Components:

On Farm Monitoring: April 2025 through October 2025

- Insect/Crop: European Corn Borer/sweet corn
- Corn Earworm/sweet corn
- Fall Armyworm/sweet corn
- Western Bean Cutworm/sweet corn
- Squash Vine Borer/vine crops
- Brown Marmorated Stink Bug/fruit and vegetables
- Spotted Wing Drosophila/fruit

Final Report: March 1, 2026

- F. Budget and Invoicing Instructions:** Campus will submit an invoice on regular Campus invoice form for \$20,000.00 at the time of Governor and Council approval for 2025; and a subsequent payment of \$58,984.00 following July 1, 2025 for state fiscal year 2026. State will pay Campus within 30 days of receipt of an invoice. Any unused funds must be returned to the State after the project end date.

Budget Items	State Funding	Cost Sharing (if required)	Total
1. Salaries & Wages	\$41,493	0	\$41,493
2. Employee Fringe Benefits	8,983	0	8,983
3. Travel	8,710	0	8,710
4. Supplies and Services	3,500	0	3,500
5. Facilities & Admin. Costs	16,298	0	16,298
In Kind Contribution		0	0
Total Project Costs			\$ 78,984

G. Other

A representative of the Department of Agriculture, Markets & Foods reserves the right to attend seminars and audit any work performed by the grant recipient.

Attachment A: Project Proposal - "2025 IPM Program for Fruit and Vegetable Crops On-Farm Monitoring"

I. Itemized Budget

Funding can only be used for items detailed in your budget. Requests for the purchase of non-consumable equipment that may serve a broader purpose than the IPM project will be rejected. Itemized budget must be specific.

Expense Account	TOTAL
Extension State Specialist 0.17 FTE (or 2 months)	\$ 13,940
Extension Field Specialist 0.08 FTE (or 1 month)	\$ 5,333
Additional Labor 110 days @ 8 hours/day @ \$25.25/hr.	\$ 22,220
Benefits	\$ 8,983
Mileage: 100 miles/day @ 130 days @ \$0.67/mile	\$ 8,710
Supplies	\$ 3,500
Subtotal:	\$ 62,686
Indirect Costs at 26%	\$16,298
Total	\$78,984

Personnel: \$41,493

UNH CE State Specialist (Entomology and IPM). Amber Vinchesi-Vahl, will be the primary person managing the grant (0.17 FTE, or 2 months). Recently hired UNH CE Hillsborough County Field Specialist, Liza DeGenring, will be co-managing the grant (0.08 FTE, 1 month). All recommendations that are given to the farmers will be approved by either Amber or Lisa and may be delivered through the IPM Scout hired for the project. Both grant managers will make follow-up farm visits when problems occur with the IPM scouting during the growing season.

Additional Labor:

IPM Scout for Insect Monitoring and Scouting

One IPM Scout will be hired for insect monitoring and scouting from April through November for various fruit and vegetable insect pests; 110 days for the IPM scout at \$25.25 per hour. The IPM scout, with participating growers/farmers/orchardists, will set-up traps, check the traps and monitor the crop weekly to record and collect data throughout the growing season. The scout will collect the traps at the end of the season, clean and inventory the good traps and dispose of the traps that are no longer usable. The scout will also administer and collect the end of season grower/farmer/orchardist surveys.

Benefits Rate(s): \$8,983

The University's fringe benefit rates are charged according to our federally negotiated rate agreement. The current applicable rates are 37.5% for full fringe benefits, and 7.9% for partial fringe benefits. The "partial fringe" rate applies to non-student hourly wages, faculty summer salaries and other exceptions to contract pay, and FICA-eligible graduate student pay (i.e., summer stipends). The "full fringe" rate

applies to all other benefits-eligible wages. College work study wages and graduate student academic year stipends are not benefits-eligible.

Travel: \$8,710

Over the previous years, the IPM scout averaged approximately 100 miles per day conducting the weekly farm visits for checking traps and monitoring crops. The total mileage is based on 100 days additional labor (IPM Scout) and 30 days for UNH CE Extension Field Specialists and/or UNH CE State Specialist, Amber Vinchesi-Vahl. Mileage and per diem expenses will be reimbursed at the current federal rates (0.67 cents/mile). Travel expenses will include in-state travel to participating farms in the IPM program and attending planning sessions and events/meetings/workshops related to this IPM program.

Supplies & Services: \$3,500

This application is requesting \$3,500 for the purchase of project supplies/services related to the support of this project. Funds will be used for purchasing traps (projected at \$2,750) since many of the traps need to be replaced prior to the 2025 growing season, trap supplies (i.e., cups, tops, wires, fasteners, etc.), attractants/lures (projected at \$500) and paper, ink, ink cartridges, and printing for forms used by the IPM scout and the PIs (Principal Investigators) (projected at \$250).

Facilities and Administrative Costs Rate: \$16,298

Facilities & Administrative (indirect) costs are calculated according to UNH's current negotiated rate agreement. The applicable rate, as shown in our federal agreement, is 26%. The US Department of Health and Human Services is UNH's cognizant federal agency.

II. Project Description (3 lines or less, to be used for publicity purposes):

Selected insect pests of fruit and vegetables will be trapped and monitored on a minimum of eighteen (18) farms weekly through the summer of 2025, plus work with a minimum of four (4) additional self-reporting farms to provide traps and lures and weekly check-ins via email or text message on trap catch numbers and to give recommendations.

III. Project Objectives (be sure to include how this project serves the concepts of IPM):

Sweet corn

- Monitoring European corn borer (ECB), corn earworm (CEW), fall armyworm (FAW), and western bean cutworm (WBC) with pheromone traps to determine need, frequency, and timing for insecticide control applications. ECB, CEW and FAW are the major sweet corn pests in New Hampshire. WBC is a newer pest that we are monitoring.
- Reduce damage caused to sweet corn by ECB, CEW, FAW, and WBC by application of properly timed insecticide applications.
- Reduce insecticide applications by applying chemicals only when needed based on trap thresholds.

Vine crops

- Determine when squash vine borer (SVB) is active on vegetable farms in New Hampshire. This was

especially useful in 2024, since we saw a 2nd generation of SVB for the first time since 2013.

- Work with vegetable farms on monitoring squash vine borer with pheromone traps to determine need, frequency, and timing for insecticide applications.
- Reduce damage caused to cucurbit crops by squash vine borer, including pumpkins, summer squash, and winter squash, through application of properly timed insecticide applications.
- Provide timely data to growers to better utilize cultural control methods, such as exclusion fabrics (row covers) for managing SVB.

Brown Marmorated Stink Bug (BMSB)

- Sentinel trapping/monitoring will be conducted for BMSB on a minimum of five (5) vegetable, small fruit and/or tree fruit farms weekly through the summer of 2025.
- Monitor for BMSB using 4-foot-tall pyramid trap with an attractant lure and/or sticky trap with an attractant lure on fruit and vegetable farms.
- Determine if BMSB is feeding on fruits and vegetables in New Hampshire.
- BMSB population data will yield information on seasonal activity and relative abundance of this pest insect, which is necessary for development of an IPM strategy. We are still trying to understand the economic impacts to vegetable crops from high BMSB populations.

Spotted Wing Drosophila (SWD)

- Sentinel trapping/monitoring will be conducted for SWD on a minimum of five (5) small fruit farms weekly through the summer of 2025.
- The data will yield information on seasonal activity and relative abundance of SWD, which is needed to determine an IPM control strategy if SWD numbers are over the action threshold of one male fly. SWD was detected in traps 3 weeks earlier in 2024 compared to 2023, so monitoring is key for timely protection of small fruits.

IV. Economic and Environmental Impact

Sweet Corn

In 2024, 27 growers participated in the sweet corn insect pest IPM program. The IPM trapping program proved that catches vary widely by site. Twenty-four farms had 26 sets of European corn borer (ECB) traps, including one trap for each of the two strains of ECB. Twenty-seven farmers had 30 corn earworm (CEW) traps. Twenty-six farmers had 29 fall armyworm (FAW) traps. Seventeen farmers had 19 western bean cutworm (WBC) traps.

The 22 participating growers in the IPM program that responded to the end of year survey planted 550.5 acres of sweet corn and harvested 492 acres (89% of the planted acreage). Comparing the acreage planted and harvested to the 2023 USDA NASS statistics data, the participating farms in the IPM program represented 58% of the sweet corn acreage planted and harvested in the state of New Hampshire.

Our 2024 sweet corn impact data is still being calculated, but in 2023, growers using the IPM program sprayed 2.04 fewer sprays using a monitoring program to make knowledge-based spray decisions compared to a calendar spray program. Fewer insecticide applications mean lower exposure risk to the applicators and farm workers. This savings was a value of \$22,134 for pesticides and \$30,741 for labor and equipment costs. The reduction in sweet corn cull rate (throwing away insect-damaged ears) due to the IPM program (as reported by the participating growers) resulted in an increase of \$187,745. Growers stated that by using the IPM practices and monitoring for insect pests with traps, they had a 5.28% cull rate for insect damage (sweet corn that could not be sold). Total sweet corn monetary impact: \$240,620. (Based on \$5.53/dozen – 2022 NASS).

We anticipate there could be positive impacts from our sweet corn work on chrysanthemum, sunflower, hemp and pepper crops. European corn borer also feeds on these crops, and our monitoring and reporting alerts these growers as well. In 2024, we observed significant ECB damage at a sunflower farm and moderate impact in a hemp field. To avoid fatiguing clientele with questionnaires, we have not measured this impact, but several growers have reported their crops have avoided significant injury because of our notifications.

Vine Crops

In 2024, 18 growers trapped for squash vine borer in pumpkins and squash (winter and summer). The participating growers in the IPM program harvested 84 acres of pumpkins, 45 acres of summer squash and 63 acres of winter squash. Comparing the acreage harvested to the 2017 USDA NASS statistics data, the participating farms in the IPM program represented 17% of the pumpkin acreage, 42% of the summer squash acreage, and 44% of the winter squash acreage harvested in the state of New Hampshire.

We have not been able to measure reduction in crop losses from the squash vine borer work and neither have the growers, but observation indicates it is effective, especially on bush-type crops of *Cucurbita pepo* or *Cucurbita maxima*. In 2024, squash vine borer trap numbers indicated the moths started flying when we would normally expect, though SVB numbers were higher overall in 2024 compared to 2023. Our trapping program detected a 2nd generation of SVB, which has not been reported since 2013, allowing growers to protect later-season varieties from the larvae boring into the fruit. Thirty-three percent of participating growers reported they sprayed less due to the IPM program. Growers saved an average of 4 sprays across 205.85 acres of cucurbit crops (pumpkins & squash). Fewer insecticide applications mean lower exposure risk to the applicators and farm workers. Only 5.6% of growers reported losses to insect damage.

Brown Marmorated Stinkbug (BMSB)

The brown marmorated stink bug (BMSB), *Halyomorpha halys*, is an invasive stinkbug native to Japan, Korea, China, and Taiwan, which is now well established throughout the mid-Atlantic region of the United States. BMSB is a polyphagous species, meaning it can feed on a wide range of hosts; therefore, BMSB has the potential to be a pest of many crops where it has established. Host crops include tree fruit, vegetables, shade trees, and leguminous crops. Because BMSB is a newly established invasive species, management programs for this pest are still being developed.

From 2014 through 2020, damage was documented on fruit and vegetable farms in New York, Massachusetts and Connecticut. BMSB was not known to have caused any damage to fruit and vegetable farms in New Hampshire until the end of 2018 growing season. In 2019 and 2020, from August through September, BMSB trap captures exploded in numbers. Due to this increase, a more rigorous BMSB monitoring protocol was put in place for the 2022, 2023, and 2024 growing seasons. In 2024, we saw high

numbers of BMSB late in the season as expected and observed stink bug damage on mature tomatoes in early September at one farm. BMSB damage on fruit does not become visible until 2 to 4 weeks after feeding occurs, so relying on fruit damage as a monitoring technique could result in detecting BMSB presence too late to prevent economic losses.

Maintaining a network of pheromone-baited traps is the most efficient means of monitoring this insect, which spends a lot of time in the canopy of forest and shade trees. The traps also tell us where BMSB population buildup is occurring before agricultural damage begins. We anticipate more damage will take place in New Hampshire in future years. Our IPM scout manages 10 sentinel BMSB traps at five farms throughout the season.

By monitoring BMSB within the growing season, UNH CE will be able to inform farmers when it begins to arrive in their regions, and we hope to help them prepare to manage this pest using the least number of insecticides. Work is currently being done by researchers in Mid-Atlantic States and New York to help farmers learn which pesticides are most effective, along with determining if there are any cultural or biological options effective for controlling this pest.

Spotted Wing Drosophila (SWD)

The spotted wing drosophila situation is relatively new to not only New Hampshire (2011), but also the United States (2008). Results of grower surveys conducted from 2012-2015 showed losses were greatest in later-maturing crops (mainly small fruits). Our trapping network allows growers to make management decisions and to take control measures only once SWD is present, preventing unnecessary sprays while preventing crop losses.

In 2024, UNH Extension and our field scout maintained a network of 17 sentinel traps on five farms in Hillsborough and Merrimack counties. The range of fruiting crops monitored for SWD trap captures included blueberry, summer and fall-fruiting raspberries, June-bearing strawberries, grapes, cherries, peaches, and plums. These monitored crops represent a total of 99.75 acres of fruiting crops known to be susceptible to SWD damage. In 2024, only one grower reported 15% damage to cherries and summer and fall brambles, and 5% damage to grapes and plums. The growers participating in the program experienced little to no loss to SWD, because they were monitoring and implementing control measures at the right time. However, we saw severe losses at other farms in cherries and strawberries because SWD arrived 2-3 weeks earlier than expected. The early arrival of SWD left many cherry and strawberry farmers unprepared, since SWD is generally only an issue for later small fruits (July-September). Trapping for SWD can help mitigate these changes in its seasonal phenology, especially in growing seasons following mild winters.

Beyond dollar savings, reduced insecticide spraying can help protect populations of beneficial insects: predators, parasitoids, and pollinators. Fewer sprays also reduce farm worker exposure to pesticides, particularly those involved with spraying, pesticide mixing & loading. Reduced spraying also reduces the likelihood of drift, and the risk of environmental contamination. It can help keep farms in business, growing locally produced food to meet the rising demand for fresh, local products.

V. How will your goals be accomplished? (i.e., experimental design)

- One IPM scout will be hired with NHDAM&F – IPM Grant funds to conduct on-farm monitoring and scouting.
- We will work with up to 18 growers/farmers in New Hampshire on weekly monitoring of insect pests,

and check traps to determine need, frequency, and timing for insecticide control applications. Also, we will work with at least 4 additional self-reporting farms, provide traps and lures, and check-in weekly via email or text message on trap catch numbers and recommendations.

Sweet Corn

o European Corn Borer - two Heliiothis traps with Scentry E-strain or 'New York' type pheromone lures and the Scentry Z- strain or 'Iowa' type pheromone lures changed every four to six weeks from May through October.

o Corn Earworm - Heliiothis trap with Hercon pheromone lure traps changed every two weeks from June through October. Historically, we have trapped CEW starting in July, but spring storms in 2024 may have brought moths up north earlier than expected (June), so we will trap earlier in 2025 to capture spring storms.

o Fall Armyworm - bucket or canister trap with Scentry FAW four component pheromone lures changed every four to six weeks from June through October. Historically, we have trapped FAW starting in July but spring storms in 2024 may have brought moths up north earlier than expected; we observed mature FAW caterpillars feeding in June in 2024. We will begin trapping for FAW in June 2025.

o Western Bean Cut Worm - bucket or canister trap with Trece pheromone lures changed every four to six weeks from May through October.

Vine Crops

o Squash Vine Borer - Heliiothis trap with the SVB pheromone lures changed every four to five weeks from June through September.

Brown Marmorated Stink Bug

o Brown Marmorated Stink Bug - 4-foot-tall pyramid trap with an attractant lure and/or sticky trap with an attractant lure will be used. The lures are changed according to recommendations (10-week lure) from the manufacturer (May-October).

Spotted Wing Drosophila

o Spotted Wing Drosophila - drowning traps will be utilized for 2025 (June-October, but the trapping protocol is evolving and will be updated as needed.

- We will check traps throughout the 2025 growing season. Some insects migrate into NH from the south on wind currents, so growers/farmers do not know when the insects arrive until damage appears, which could lead to the growers/farmers applying unnecessary sprays for prevention.

- A regular report will be published throughout the growing season and made available through UNH Extension marketing channels. The weekly reports are emailed to participating farmers, posted on UNH Extension (<https://extension.unh.edu/resource/vegetable-ipm-reports>), and sent out via a text subscription service. These avenues provide trapping data to other growers in the state which they can use to make pest management decisions. If there are major insect outbreaks, we will consider disseminating alerts through additional means, including Weekly Market Bulletin.

- At the end of the season, participating farmers in the program will complete a survey/evaluation to measure impact.

VI. Sampling Methods (if applicable):

- On-farm monitoring for insect pests will be conducted during the 2025 growing season on a minimum of 18 operations in New Hampshire with UNH CE personnel assisting. Also, we will work with at least four (4) additional farms providing traps and lures and weekly check-ins via email or text message on trap catch numbers and recommendations.
- Trap counts will be reported to growers weekly. Growers are encouraged to participate in the monitoring to gain knowledge and skills needed to best utilize and interpret data for informed pest management decision-making.
- Any pheromone lures or baits used in the trap will be changed according to manufacturer recommendations.
- Working with the growers/farmers, some traps will be moved according to crop conditions and maturity. For example, corn earworm (CEW) is attracted to silking corn and traps are moved to field with silking corn as needed throughout the season.
- Depending on how the traps are used in the field, material breakdown of the traps during growing season and storage of the traps, a lifespan of two or more years can be expected prior to the need for replacement.

VII. How will your data be evaluated?

- At the end of the season, growers/farmers in the program will complete a program evaluation survey to be reviewed by UNH CE personnel. Number of sprays applied per sweet corn field will be compared to trap counts. The growers' perspective of the amount of sweet corn ears damaged due to insect damage will also be evaluated. The growers' perspective of pesticide applications saved by participating in SVB monitoring in vine crops is also part of the evaluation.
- Based on the monitoring counts collected during the season, UNH CE can decide if additional educational programming needs to be developed for fruit and vegetable growers/farmers in the state.
- Program evaluation reporting will be conducted by March 1, 2026, to allow time to compile grower survey results and process program impact data. This report will be provided to the NHDAM&F, as well as partner organizations who may benefit from the data.

VIII. Explain how the results of your project will be shared/publicized.

All published literature (papers, presentations, publications, advertisements, etc.) must contain a statement attributing funding to the New Hampshire Department of Agriculture, Markets and Food IPM Grant Program. Publications must be submitted with the final report.

- A weekly visit to each grower will be made to monitor trap counts where the grower will be provided information on need, frequency, and timing for insecticide control applications.
- Weekly scouting and trapping data will be emailed to participating growers, posted online for program participants, as well as non-participating growers, researchers, agricultural consultants, etc., to view and utilize in pest control decision making. We also utilize a text subscription service to disseminate the

Vegetable IPM Reports and any other relevant information like pest alerts and UNH CE events.

- Updates on insect pest situations will be given at scheduled grower twilight meetings throughout the growing season.
- If major insect outbreaks occur, warranting special alerts, we will disseminate this information through media channels; including the Weekly Market Bulletin.
- A presentation on the results of this project will be developed and presented to vegetable growers/farmers and at regional meetings upon request.

IX. Detail how other groups may adopt some of the information you learn or develop:

- The UNH CE Extension specialists will be available to present the information described above. Additionally, UNH CE specialists participate in weekly calls with Extension representatives from all New England states. Here, our weekly trapping data and pest management recommendations are shared to benefit growers, researchers, and Extension specialists in the region. Vegetable pest information from other northeastern states also helps inform our weekly Vegetable IPM Reports.

Provide a complete list of all persons involved in the proposed project; include the names, addresses and phone numbers of the individuals.

Amber Vinchesi-Vahl, Ph.D.
UNH Cooperative Entomology & IPM Extension State Specialist
UNH Cooperative Extension-Kendall Hall, Room 330
129 Main St.
Durham, NH 03824
603-696-3312
Amber.Vinchesi@unh.edu

Liza DeGenring, Ph.D.
Extension Field Specialist-Food and Agriculture
UNH Cooperative Extension-Hillsborough County
329 Mast Rd., Room 101
Goffstown, NH 03045
(603) 862-4879
Liza.DeGenring@unh.edu